COMMONWEALTH of VIRGINIA

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MEMORANDUM

TO: Senator R. Edward Houck

CC: Members, Joint Legislative Audit and Review Commission

FROM: Glen S. Tittermary, Director

SUBJECT: Review of the Proposal to Privatize Virginia's ABC System

On September 21, 2010, you asked staff to review Governor McDonnell's proposal to privatize Virginia's alcoholic beverage control system. Your letter asked that we provide more information on the framework of the proposal, the one-time revenues from the auctioning of licenses, the ongoing revenues to replace the current markup and excise tax, and the proposed use of one-time funds for transportation. Anticipating that this information might be useful prior to a Special Session of the General Assembly in November, the Chairman authorized staff to undertake an immediate, limited review of the Administration's proposal. This memorandum discusses the findings of our review.

Our analysis focuses on the Administration's proposal as voted on by the full Commission on Government Reform and Restructuring at its September 30 meeting. A short synopsis of the proposal is contained in the Reform Commission's interim report dated October 15, 2010. According to the Governor's office, significantly different proposals are now being considered. Written comments received from the Governor's staff on November 19, 2010, have been taken into account in the following discussion.

In response to your request, JLARC staff met with and collected information from members of the Governor's staff and staff of the Departments of Taxation, Planning and Budget, Alcoholic Beverage Control, and General Services. JLARC staff also met with and/or reviewed information submitted by representatives of the Retail Alliance, the Virginia Retail Federation, the Virginia Wine and Beer Wholesalers Association, the Virginia Petroleum Convenience and Grocery Association, the ABC Privatization Coalition, Total Wine & More, and the Distilled Spirits Council of the United States (DISCUS).

As you know, Virginia is one of 18 "control" states, so named because consumers purchase distilled spirits only at State-run stores supported by a State-run wholesale operation. The Department of Alcoholic Beverage Control (ABC) maintains a warehouse in Richmond and contracts with a trucking firm to deliver to the 332 stores across the State. The basic arrangement was established in 1934, upon the repeal of prohibition. Governor McDonnell has proposed to privatize the retail and wholesale functions of ABC, and replace the current ad valorem excise tax on distilled spirits with a per-gallon tax. According to Administration staff, the Distilled Spirits Council of the United States (DISCUS) and other industry sources provided data for key assumptions used in the proposal.

FRAMEWORK OF THE ADMINISTRATION PROPOSAL

The Administration proposal to privatize the sale of distilled spirits would require several major changes. The Administration has indicated that the proposal would generate at least $458 million on a one-time basis. Each of the major proposed changes, and the Administration's estimates of the one-time or recurring revenue each would generate, are discussed below.

- The 332 State ABC stores would be closed and about 1,000 retail licenses would be sold at auction. The number of retail licenses in each locality would be tied to population at the rate of about one license for every 8,000 persons. There would be four levels of licenses based on factors such as store size, linear feet of shelving dedicated to the sale of spirits, percentage of gross revenues from the sale of alcoholic beverages, and the number of store employees statewide, although not all these factors would apply to each level of license. Licensees at Levels 3 and 4 would be allowed to make payments on their winning bid over as much as five years. The State would set minimum bid amounts for each license. If the minimum bid was not obtained, Governor's staff indicate that the minimum may be lowered further. No one company would be allowed to obtain more than 25 percent of the licenses within each level. Estimated revenue from these sales is a minimum of $265 million.
- The wholesale function currently managed by ABC would also be privatized. Wholesale licenses would be sold for a fixed price, set at 2.5 times the annual gross profit of the spirit line being distributed. There would be no cap on the number of wholesale licenses. Estimated revenue from these sales is a minimum of $161 million.
- The existing excise tax on spirits, currently set at 20 percent of the sales price, would be replaced with a gallonage tax of $17.50 per gallon of distilled spirits. Estimated recurring revenue from the gallonage tax is $175.7 million.
- Finally, ABC's real estate assets, consisting of the warehouse and attached store in Richmond and 18 other stores around the State, would be sold. Estimated revenue from these sales is $33 million.

Table 1 summarizes the one-time revenues from the Administration's proposal. The Administration proposes to use this one-time total revenue of $459 million for transportation improvements. Revenues would be deposited into a transportation infrastructure bank, basically a type of revolving fund. This aspect of the proposal is discussed in more detail later in this memorandum.

Total recurring revenues related to the sale of alcoholic beverages, including current excise taxes on beer and wine, revenues from existing ABC operations that would cease under the Administration proposal, and estimated revenues from the Administration's proposed changes, are less than assumed in the FY 2011 budget (Table 2).

Table 1: One-Time Revenues in Administration Proposal ($ in Millions)

Action	Estimated Revenue
Auction of 1,001 Retail Licenses	$265
Sale of Wholesale Licenses	161
Sale of ABC real estate	33
Total	**$459**

Source: Interim Report of the Commission on Government Reform and Restructuring.

Table 2: Alcoholic Beverage-related Recurring Revenues Fall Short of FY 2011 Budget ($ in Millions)

Revenue Source	Estimated Revenue	FY 2011 Budget	Difference
Proposed Spirit Excise Tax	$175.7	$111.4	$64.3
ABC Profits to State	0	113.1	-113.1
Malt Beverage Tax	43.4	43.4	0
Sales Tax	39.6	25.6	14.0
Wine Excise Tax	20.7	20.0	0.7
Other Transfers from ABC	9.1	10.7	-1.6
Corporate/Business Income Tax	5.8		5.8
Proposed Annual Retail Fee	1.4		1.4
	$295.7	$324.2	**-$28.5**[a]

a. The Administration proposes to use $16.6 million of the spirit excise tax revenue and $1.4 million in annual retail fees for enforcement costs, netting $159.1 million in excise tax revenues for other uses and resulting in a change from the FY 2011 budget of $47.3 million instead of $28.5 million.

Source: Appropriation Act, Secretary of Finance, Governor's Office.

REVENUE ESTIMATES FROM AUCTIONING RETAIL LICENSES VARY BASED ON MANY ASSUMPTIONS

The Administration proposal to privatize the retail sale of distilled spirits contains many assumptions. JLARC staff attempted to identify and validate the assumptions that are key to generating revenue under the proposal. However, some of the assumptions could not be quantified or validated, which could in turn either increase or decrease the estimates.

How Retail Licenses Would Be Sold

The Administration proposal provides for 1,001 off-premise distilled spirits licenses auctioned to the highest bidders. This number was chosen, according to Administration staff, to bring Virginia to approximately the national average ratio of 8,000 people per retail outlet. The proposal includes four levels of retail licenses, with the greatest number of licenses (596) being assigned to Level 1 licenses (Table 3). Administration staff indicated that the

Table 3: Retail Licenses Would Be Auctioned at Four Levels to Different Types of Stores

Level	# of Licenses	Type of Store: Retail Space (Sq Ft)	Type of Store: Shelf Space for Spirits (Linear Ft)	Type of Store: Other Criteria	Examples
1	596	15,000 or more	200 or more	n.a.	"Big box" / grocery stores
2	142	Less than 30,000	200 or more	At least 70% of gross revenues from alcoholic beverage sales	Package stores, specialty wine and beer shops
3	186	Less than 15,000	200 or less	n.a.	Convenience stores, retail pharmacies
4	77	Less than 3,000	200 or less	50 employees or less statewide	Not specified

Source: Governor's Office.

number of Level 1 licenses was chosen in part because nationwide about 70 percent of all groceries are purchased at stores of more than 15,000 square feet. Administration staff assigned about 60 percent of licenses to this level, somewhat less than the nationwide statistic.

The projected number of stores in each locality was calculated on the basis of several assumptions. First, each locality would maintain a number of licenses equal to at least the number of ABC stores currently operating within its boundaries. Then, the number of licenses to be sold in each locality was calculated by dividing the projected 2010 population of each locality by 8,000. For each locality, this number was rounded down to the nearest whole number. Currently, ABC operates 332 stores, so the 1,001 retail licenses represents an increase of 669 outlets selling distilled spirits.

Although the number of distilled spirits outlets statewide would increase three-fold, some localities (generally those with larger populations) would see a much higher increase in the number of retailers as result of the Administration proposal. For example, the number of retail outlets would quadruple in Virginia Beach (from 14 to 56) and would increase ten-fold in Rockingham County (from 1 to 10).

The proposal provides that retail licenses would be granted in perpetuity, and could be sold, transferred, or leased subject to approval by ABC or some other entity charged with oversight of retail licensees. According to the Administration, this provision would increase the upfront value of retail licenses at auction, as winning bidders would have both a potentially unlimited timeframe over which to amortize the cost of the license, and a valuable asset, namely, the right to sell distilled spirits.

Administration staff have also proposed that no company be allowed to obtain more than 25 percent of the licenses within each of the four levels. Staff have stated that this limitation would prevent any single firm from controlling retail sales of spirits within the State. However, there appears to be no requirement that bidders for retail licenses actually operate a retail store; potentially, retailers could bid in several license categories to drive up license prices or to prevent potential competitors from winning the right to retail spirits.

The method to be used for allocating the different levels of licenses among localities is unclear. Administration staff have indicated that the allocation of licenses first attempted to reflect the overall distribution of licenses by level seen statewide (e.g., 60 percent of licenses were Level One). When the overall number of stores in a locality was too small (such as there being three or fewer stores), licenses were allocated in such a manner to maximize State revenue. The application of this methodology does not appear consistent, however. For example, it appears that in some localities that would have fewer than four licenses a license level may have been chosen to maintain the statewide distribution of licenses instead of to maximize revenue.

How Minimum Bids Would Be Set for Retail Distilled Spirits Licenses

The Administration proposal would set minimum bids for retail licenses through a series of steps that focus on the number and profits of State stores in each locality and then apply "factors" and make other adjustments. Minimum bids will not serve as a reserve price, according to Administration staff, meaning that if no bid comes in at or above the pre-set minimum, a lower bid may be accepted.

The first step in setting the minimum bid price for each license would be to sum, for each locality, the adjusted net profit of all existing ABC stores. Adjusted net profit for each store is then calculated by subtracting the costs of wholesale and retail operations from gross profits. That number is then divided by the number of existing stores in the locality to get an average adjusted net profit.

Unadjusted minimum bids would then be set by dividing the average adjusted net profit in the locality by the percentage increase in the number of stores in the locality post privatization. This would spread existing ABC profits over the increased number of off-premise retailers of distilled spirits.

The result would then be multiplied by a factor based upon license level, with Level One licenses assigned a factor of 5, Level Two licenses assigned a factor of 2, and Level Three and Four licenses assigned a factor of 3. These factors are intended to incorporate the differing abilities of stores at the different levels to amortize the cost of a license, according to Administration staff.

The results of this calculation would then be further adjusted for wholesale and retail markups of 20 percent and 25 percent, respectively. This would be done by multiplying the unadjusted minimum bid price by 0.55. This procedure would generate the minimum bid for each new retail license.

The process for calculating the price for a Level One retail license in Fairfax County is shown in Exhibit 1.

The total expected one-time revenue from the auction of retail licenses was then calculated by multiplying the adjusted minimum bid price by the number of licenses available in each locality and summing across localities. The Administration estimates that the auction of retail licenses would generate a one-time revenue amount of at least $265.8 million.

Exhibit 1: How Level One Retail License Prices Would Be Calculated for Fairfax County

Total ABC Adjusted Net Profits in Fairfax County		$13,268,537
Number of Existing Stores in Fairfax County	÷	37
Average Adjusted Net Profit		**$366,717**
Number of Retail Licenses in Fairfax County		137
Number of Existing Stores in Fairfax County	÷	37
Growth in Retail Outlets		**3.6**
Average Adjusted Net Profit		$366,717
Growth in Retail Outlets	÷	3.6
Multiplication Factor for Level One Licenses	x	5
Unadjusted Minimum Bid Price		**$513,959**
Unadjusted Minimum Bid Price		$513,959
Discount for Wholesale and Retail Markup	x	0.55
Minimum Bid Price for Level One in Fairfax County		**$282,677**

Note: Results shown are for illustration only and reflect the rounded amounts.

Source: JLARC staff analysis of Administration data.

Uncertainty Regarding Assumptions Raises Questions About Revenue Estimates

The Administration proposal makes numerous assumptions in calculating the minimum bid prices for retail licenses, the adjustment of any one of which may substantially impact potential revenues. The following discussion focuses on assumptions that may lead to over- or under-estimating the revenues from auctioning retail licenses.

This analysis attempts to identify the revenue impact of each of these assumptions, one at a time. If all the assumptions in the proposal were changed simultaneously, the impact on revenue could be compounded and thus the change in revenues could be greater than suggested here.

In addition, the Administration proposal does not specify a structure or methodology for the auction of retail licenses. The structure of an auction can substantially impact revenues received, but this topic has not been addressed in the proposal. For example, in 1991 the design of West Virginia's auction of retail licenses was one reason the state ultimately held three auctions instead of one, as originally planned, in order to sell all available licenses.

Correcting Erroneous Store Locations Could Increase Potential Revenue by $1 Million. The proposal included several existing ABC stores in the wrong locality in the minimum bid calculations. Thus, either too high or too low a number of stores per locality was used in calculating the average adjusted net profit per store per locality. For example, the ABC store at 183 Community Street is located in Albemarle County, but the Administration proposal listed it in Charlottesville for the purposes of calculating minimum bids.

Working with ABC staff, JLARC staff identified a total of 16 localities which were affected by the error, with a total of 12 stores erroneously included as part of the wrong locality. After correcting for this error, the total revenue from the auction of all licenses at the recalculated minimum bid prices anticipated by the Administrations staff's proposal would increase by $1 million, from $265.8 million to $266.8 million. This corrected total is used in subsequent calculations in this review.

If All Licenses Are Not Sold, Potential Revenues Will Be Reduced. Whether all licenses will sell at auction for at least the minimum bid is a key concern. For example, if an insufficient number of bidders emerge to purchase all available retail licenses or to ensure competitive bidding, revenues may be lower than estimated by the Administration. When West Virginia bid out retail licenses, no retailers bid in several counties, and as a result, several areas of West Virginia currently have no retail vendor of distilled spirits.

Accepting Bids Below the Pre-set Minimum Will Reduce Potential Revenue. Administration staff have stated that the minimum bid price is not a reserve price, and that if the minimum bid is not reached on every license a lower bid may be accepted. Thus, it is not assured that all licenses will sell at their minimum bid price. To the extent this occurs, revenues will be reduced. Details about how this possibility will be handled have not been made available. In advance of the auction, there may be no way to know whether this situation will occur.

If Level 3 and 4 Licensees Pay Bids Over Time, Potential Revenues Will Be Reduced. The proposal provides an optional payment plan for winning bidders on Level 3 and 4 licenses to make payments over three to five years. To the extent bidders exercise this option, first-year revenues will be reduced and subsequent-year revenues will be increased. In advance of the auction, there may be no way to know the extent of the first-year revenue reduction.

Correcting Erroneous Markup Calculation Could Reduce Potential Revenue by $24.3 Million. When Administration staff discounted minimum bid prices by removing the wholesale (20 percent) and retail (25 percent) markups, staff simply added the markups together and reduced the bid by multiplying the total by 0.55. This is arithmetically incorrect. If a wholesale markup of 20 percent were followed by a retail markup of 25 percent, total markup would be 50 percent, not 45 percent. The correct multiplier would therefore be 0.5, not 0.55. Adjusting the minimum bid prices to reflect compounded wholesale and retail markups would reduce potential revenue from the auction of retail licenses by $24.3 million, to $242.5 million.

Excluding Sales to On-Premise Licensees Could Reduce Potential Revenue by $57 Million. In calculating minimum bid prices for retail licenses, the Administration proposal used store-level adjusted net profits that include sales to on-premise licensees. Currently, on-premise licensees (e.g., restaurants) must purchase all distilled spirits served in their establishments from specified ABC retail stores. Statewide, ABC sales to on-premise licensees represent approximately 18 percent of total ABC revenue.

Sales to on-premise licensees at the current ABC stores range from 0 to 99 percent of total revenues. Post-privatization, on-premise licensees will be allowed to purchase distilled spirits directly from wholesalers. This likely means that off-premise retailers will not supply on-premise licensees with spirits, and thus will face a reduced base of consumers to which they may potentially sell spirits.

While including net profits resulting from sales to on-premise licenses in the base of minimum bids allows the State to recoup more economic value from privatization, it may overestimate the value of retail licenses to potential bidders. Adjusting net profits at the store level to reflect the loss of sales to on-premise licensees reduces the total revenue from retail license auctions in the Administration's model to $209.8 million, holding all else constant. This would represent a reduction of $57 million from the Administration's estimate of $266.8 million.

Varying Assumptions About Retailers' Ability to Raise Capital for Bids Could Increase or Reduce Potential Revenue. To calculate the adjusted minimum bid price for retail licenses, Administration staff used multipliers to reflect the differing ability of retail licensees to amortize the upfront costs of purchasing a license to sell distilled spirits. The greater the value of the multiplier, the higher the price of a retail license. For Level One licenses the multiplier chosen was five, for Level Two licenses the chosen multiplier was two, and for Level Three and Four licenses the chosen multiplier was three, as discussed earlier. The specific multipliers chosen appear to be arbitrary. It is not clear, for example, why the smaller retailers in Level Four would be assumed to have a greater ability to amortize the license cost than a Level Two retailer.

While it may be the case that retailers of different sizes have differing abilities to amortize the costs of purchasing a license to retail spirits, Administration staff did not provide any basis for choosing the particular values used in the model. If these multipliers were increased, the minimum bids would be set at higher levels. If, on the other hand, the multipliers were reduced, the minimum bids would be decreased.

Assuming a More Realistic Wholesale Markup to be Paid by Retailers Could Increase Potential Revenue. In adjusting the minimum bid price for retail licenses, Administration staff assumed that all retail licensees would pay an identical wholesale markup on goods sold. However, this runs contrary to the wholesale markups seen by retailers selling beer and wine. While wholesalers must offer the same price to all retailers, they are allowed to offer volume discounts. In practice, this has meant that larger retailers (who typically order larger volumes) pay lower wholesale prices than smaller retailers.

Administration staff have indicated that they anticipate similar rules to exist for wholesalers of distilled spirits to those in place for beer and wine wholesalers, which would suggest that larger spirits retailers would see a lower wholesale markup. If, under privatization, larger retailers were to see lower markups due to volume discounts, according to the Administration's model the minimum bid prices for Level One licenses may underestimate the value of those licenses to larger retailers. Higher bids could therefore be expected for Level One licenses, although it is not possible to precisely estimate the overall impact.

Using A More Realistic Retail Markup for Level One Licenses Could Increase Potential Revenue by $47 Million. Bidders' willingness to pay likely will be based upon their expected revenues and profits generated by acquiring the right to sell distilled spirits. In some cases, the value of the retail licenses may exceed the revenue generated solely through the sale of spirits; for example, grocery stores could use spirits as a loss-leader in order to increase sales of other commodities and thus be willing to pay more for a license.

In general, if a retailer expects higher margins on a commodity (and therefore, higher profits), the retailer's willingness to pay more for a license may increase. However, methods used in the Administration proposal assume the opposite when it discounts the minimum bid prices of retail licenses—it assumes that when the retail markup increases then the minimum bid price will decrease, and conversely, when the markup decreases, the minimum bid price will increase.

JLARC staff were unable to find support for the assumption that all retail licenses would adopt similar retail markups, particularly across license categories. In interviews with JLARC staff, several larger retailers estimated that their retail markup of distilled spirits may be as low as ten percent, and may be substantially lower than the markup on distilled spirits by smaller retail licensees.

The proposal assumes a uniform 25 percent retail markup in its calculation of minimum bids for retail licenses. If industry estimates of a ten percent markup on distilled spirits were instead used in the Administration's method, an additional $47 million from the auction of Level One retail licenses could potentially be generated, holding all else equal.

Revenue From Auction of Retail Licenses Could Vary Considerably From Administration Estimates

Table 4 illustrates the effects on the revenue generated by the proposed auction of retail licenses by correcting or otherwise adjusting several of the specific assumptions included in the Administration proposal. In two cases, minimum bids statewide would be set higher; in two cases, bids would be set lower. In several other cases, the impact could increase or decrease revenues in ways that cannot be anticipated. Table 4 also illustrates the impact on total revenue that can occur from altering individual assumptions in the overall model. Resetting the model for numerous changes in assumptions is beyond the scope of this review.

Table 4: How Changing Assumptions in the Proposal Impact the Potential First-Year Revenues From the Auction of Retail Licenses ($ in millions)

Changed Assumption	Impact on the First-Year Estimate	Difference from Administration Estimate
Accepting Bids Below the Minimum Bid Amount	Down	n/a
Assuming Level 3 & 4 Licensees Pay Bids Over Time	Down	n/a
Assuming All Licenses Are Not Sold	Down	n/a
Varying Ability of Retailers to Raise Capital	Up or Down	n/a
Removing Adjusted Net Profits From Sales to Mixed Beverage and Off-Premise Licensees	Down	(57.0)
Compounding Wholesale and Retail Markup	Down	(24.3)
Correcting Erroneous Store Locations	Up	$1.0
Assuming a 10 percent Retail Markup for Level One Retail Licenses	Up	$47.0

Source: JLARC staff analysis of ABC and Administration staff data.

REVENUE ESTIMATES FROM SELLING WHOLESALE LICENSES MAY BE TOO HIGH

JLARC staff reviewed the Administration proposal to sell wholesale licenses and identified several problems. Before reviewing problems with the proposal, however, a key issue is how license prices should be set: Should they be based on the future value of the wholesaling business to the licensees? Or should license prices be set based on the present value of the future wholesaling revenue the State is surrendering to the private sector?

Proposal Sets Wholesale License Prices Based on Expected Value to Licensees

The FY 2011 budget includes $113.1 million as profit that the current ABC operation will return to the State. This revenue stream will be eliminated by the Administration proposal. It may be prudent to consider the present value of this revenue in setting wholesale and retail license fees. A present value analysis calculates the current value of a series of future payments. For example, the present value of a $113 million per year revenue stream over a ten-year period could range from $916 million to $1.01 billion, assuming a two to four percent rate of interest. Conducting a complete present value analysis is beyond the scope of this limited review, in part because it is not clear that this profit reflects the net value of current ABC operations. The Administration proposal focuses on the value to future licensees.

The Administration proposal would eliminate Virginia's current warehousing and distribution operation by ABC. Wholesale licenses to distribute distilled spirits would be sold at a fixed price. Prices for these licenses would be based on the value of the opportunity to purchase distilled spirits from suppliers.

These wholesale licenses would be sold on a product line basis at 2.5 times the anticipated annual gross profit to the licensee of the spirit line being sold. The Governor's staff indicate that this multiplier is based on the way wholesalers compensate other wholesalers when buying and selling product lines in states with private spirits wholesaling. This means that the prices would be set based on the projected future value to the purchaser, rather than the current value to the State.

Unlike retail licenses, which the Administration proposes to sell through an auction process, wholesale license prices would be fixed for each product line. While the Administration's plan does not place a cap on the number of wholesale licenses sold, it is unclear if there would be multiple license seekers for many product lines. In interviews with JLARC staff, some stakeholders indicated that a vast majority of spirits lines in Virginia are currently brokered by fewer than five major companies which have exclusive agreements with distillers. If distillers typically establish an exclusive agreement with a single distributor, the value of an auction in maximizing revenue would be limited, as substantial competition for licenses would not exist.

Needed Adjustments Would Lower Wholesale License Revenue Estimate

The Administration proposal estimates that the sale of licenses for wholesale distribution will result in revenues of $161 million. This amount was calculated by applying an estimated 20 percent wholesale markup to ABC's reported cost of goods sold in FY 2009 (which was $322 million). The cost of licenses was then calculated by applying a multiplier of 2.5 to this estimate of wholesale markup (according to the Administration, this multiplier is based on industry standards of between one and three times profits when brands are traded between wholesalers):

$322 million X 20% = $64.4 million X 2.5 = $161 million

Use of Markup Instead of Profits Appears Incorrect. There appear to be several problems with the total revenue estimate for the sale of wholesale licenses. First, use of the entire 20 percent wholesale markup rather than the five percent of wholesale gross receipts that is assumed to be wholesale profit appears to be incorrect. Wholesale markup differs from wholesale profit, because the markup includes the costs of wholesale activities such as warehouse rent and employee salaries. Wholesale profit nets out these costs and represents the actual return on investment to the wholesaler.

According to the staff presentation to the Governor's Restructuring and Reform Commission on September 8, 2010, "Wholesale licenses will be sold at a cost of 2.5 times the gross profit of the spirit line being distributed." To remain consistent with this claim, wholesale gross receipts should be calculated by applying the 20 percent wholesale markup to the cost of goods sold. Wholesale gross profits should then be calculated as five percent of wholesale gross receipts. This would have the effect of reducing the total revenue estimate.

Administration staff indicated that five percent was suggested by DISCUS to indicate wholesale profit. Differing assumptions about profit could increase or decrease the estimated revenue.

Proposal's Estimate Leaves Out Certain Costs. A second problem is that the Administration underestimates the base cost of goods sold, upon which wholesalers will apply their 20 percent markup. Since the cost to wholesalers will include what the Administration estimates to be a $4 per case transportation and handling cost as well as the proposed $17.50 per gallon excise tax, these two elements should be applied to ABC's cost of goods sold before applying the 20 percent wholesale markup. This assumes that wholesalers will apply their markup to the actual costs they face, which is consistent with models used by the Department of Taxation (TAX) to estimate sales and corporate taxes.

Lastly, the Administration proposal was based on FY 2009 data. Table 5 uses FY 2010 data available from ABC and applies the aforementioned changes to calculate a revised wholesale license revenue estimate of $76 million. Because the Administration proposal indicates that wholesale licenses will be sold by product line, it may be more accurate to estimate revenues by evaluating estimated gross profits by product line. Estimating wholesale license revenue in this manner results in essentially the same estimate, $76.9 million.

Department of Taxation Used a Different Method, Yielding Higher Revenue Estimate. TAX's model of wholesale licensee gross profits, which is used for estimating income taxes from wholesalers, generates a slightly larger figure than the $30.5 million used in the analysis above. This is because TAX's estimate incorporates assumptions about privatization including repatriation of sales and changes in wholesale cost per case, resulting in a wholesale profit estimate of $35.65 million. Using this profit calculation as the basis for the estimate, wholesale license revenue is estimated to be $89.1 million (2.5 x $35.65 million).

Thus, two different sets of assumptions lead to significantly lower estimates of revenue from the sale of wholesale licenses. However, changing any of the assumptions in the model could increase or decrease the estimate.

Table 5: Estimated Wholesale Revenue Is Reduced When Calculation Errors Are Corrected and FY 2010 Data Are Used

FY 2010 Cost of Goods Sold (ABC)		**$328,968,323**
Excise Tax (per gallon)		$17.50
FY 2010 ABC Volume (gallons)	x	9,356,318
Total Excise Tax		**$163,735,557**
Transportation and Handling Costs per case		$4.00
FY 2010 ABC Cases	x	3,701,383
Total Transportation and Handling Costs		**$14,805,532**
FY 2010 Cost of Goods Sold (ABC)		$328,968,323
Total Excise Tax		$163,735,557
Total Transportation and Handling Costs	+	$ 14,805,532
Total Cost at Wholesale		**$507,509,412**
Total Cost at Wholesale		$507,509,412
20 Percent Wholesale Markup	+	$101,501,882
Wholesale Gross Receipts		**$609,011,294**
Wholesale Gross Receipts		$609,011,294
Assumed Profit Margin	x	5 %
Wholesale Profit		**$30,450,565**
Wholesale Profit		$30,450,565
Wholesale License Multiplier	x	2.5
Total Wholesale License Revenue		**$76,126,412**

Source: JLARC staff analysis of ABC and Tax Department data.

REVENUE ESTIMATE FROM SALE OF ABC REAL ESTATE MAY BE HIGH

The Department of Alcoholic Beverage Control owns 18 of the 332 stores that it operates. ABC also owns the warehouse it operates on Robin Hood Road in Richmond. The Administration proposal estimated the sale value of these 19 properties at $33.1 million. The largest single property is the warehouse, with a value estimated by the Administration at $13.87 million.

A separate review of all 19 properties conducted by a real estate broker on contract with the Department of General Services (DGS) provided a total estimate of the value of the properties ranging from $27.4 million to $32.3 million. The DGS-retained firm estimated the value of the ABC warehouse as $8.5-$11.5 million.

The proposal is within three percent of the high-end estimate provided by the DGS firm. However, with the uncertainties of the real estate market and the question of whether the State would get the best price when selling under a tight deadline to generate revenue, the Administration's estimate may be somewhat higher than could be reasonably expected.

IF ASSUMPTIONS ABOUT PROPOSED NEW EXCISE TAX DO NOT MATERIALIZE, LESS REVENUE MAY BE GENERATED

The Administration proposes to replace the existing excise tax on distilled spirits with a new excise tax. The existing excise tax is an ad valorem tax imposed at the rate of 20 percent on the sales price of distilled spirits. The Secretary of Finance reports that the existing excise tax is expected to generate $111.4 million in FY 2011.

The new excise tax would be a gallon tax on distilled spirits, similar to how excise taxes are imposed for wine and beer in Virginia. (The excise tax for wine is $0.40 per liter and the tax for beer is $7.95 per barrel.) The distilled spirits tax would be imposed at a rate of $17.50 per gallon and applied at the wholesale level. Based on an estimated growth in sales volume of approximately 10.7 percent in the first year, the Administration projects that the new excise tax would generate approximately $175.7 million annually—$64.3 million more than expected from the existing excise tax in FY 2011.

Because the new excise tax would be a gallonage tax, it is dependent on the volume of distilled spirits sold. The Administration proposal includes several key assumptions about volume based on the potential impact on demand for distilled spirits as a result of potential price increases, the repatriation of sales from other states, and natural growth in sales.

Table 6 shows that whether the Administration's assumptions materialize as expected, particularly regarding the price impact on demand and repatriation, could have a significant impact on the amount of excise tax generated. If the assumptions in the Administration proposal do not materialize, there could be a significant shortfall in revenue collected.

Table 6: How Changing Assumptions in the Proposal About Price and Volume Impact Potential Excise Tax Revenue (2011)

Changed Assumption	Impact on Estimate	Administration's Proposal	Assuming a 26% Retail Price Increase	Assuming an 11% Retail Price Increase
Decreasing Volume of Off-Premise Sales Due to Price Increase[a]	Down	0.0%	-46.3% to 10.4%	-21.3% to -4.4%
Increasing Total Volume Due to Repatriation	Down	7.7%	0% to 6.4%	0% to 6.4%
Increasing Total Volume Due to Natural Growth	Up or Down	3.0%	3.0%	3.0%
Decreasing Excise Tax Revenue Estimate		$175.7 million	-$69.6 million to -$10.8 million	-$35.9 million to -$2.6 million

[a] Price elasticity estimates range from -2.0 (based on a review of relevant literature) to -0.4 (based on estimates from ABC staff). Decreases in volume are estimated only for off-premise sales. On-premise sales would probably also decrease, but estimating these decreases would require that retailers not change their markup, which may not be as likely as with off-premise sales.

Source: Virginia Department of Taxation; JLARC staff analysis of ABC data.

Increased Prices May Reduce Volume of Distilled Spirits Sold

One of the most significant factors that may affect the volume of spirits sold under the Administration proposal and thus the excise tax revenue collected is how potential price increases may impact consumers' demand for distilled spirits (referred to as the "price elasticity"). Substantial literature has been developed over the past several decades on the relationship between the alcoholic beverage tax, price levels, and alcohol sales or consumption. Several reviews have found that distilled spirits are more price elastic than wine and beer.

The specific price elasticity value for distilled spirits varies greatly from study to study. One review of several studies on the effects of excise taxes reported elasticities for distilled spirits ranging from a negative 0.8 to a negative 2.0. Using the high end of this range as an example, a price elasticity of –2.0 would mean that for every one percent increase in price, demand for distilled spirits would decrease by two percent. These price elasticities are higher than what is estimated by ABC staff based on recent experience. ABC staff reported a price elasticity of –0.4 when the markup was last increased. However, elasticity may depend on the magnitude of the price increase; it may be that demand becomes more sensitive to price as prices increase.

The Administration proposal does not take elasticity into account even though there would almost certainly be an impact on volume if prices increase. However, the potential impact on price of privatizing the sale of distilled spirits is largely unknown because it is not known how newly privatized wholesalers and retailers in Virginia would mark up their products.

Using the Administration's assumptions of a 20 percent markup at the wholesale level and a 25 percent markup at the retail level, prices could be expected to increase by 26 percent based on a weighted average of brands sold by ABC in 2010. JLARC staff discussed markups with several retailers who indicated that the retail markup for distilled spirits is often closer to ten percent or less. With a markup of ten percent, prices could be expected to increase by 11 percent based on a weighted average.

Table 6 shows the impact on off-premise volume if average prices increased by 26 percent and by 11 percent. Using price elasticities ranging from –2.0 to –0.4, the volume of spirits purchased off-premise could decrease from anywhere from 4.4 percent to 46.3 percent compared to FY 2010 levels.

Table 6 also shows that depending on the price increases and price elasticities that occur, the reduction in demand as a result of increased prices may offset any increases in demand as a result of repatriation or natural growth (discussed below).

A related consideration is that changing the excise tax from an ad valorem tax to a flat $17.50 tax per gallon will affect different brands of distilled spirits differently. In particular, the $17.50 gallonage tax will significantly increase the price of cheaper brands while reducing the price of more expensive products. For example, the price of the cheaper Aristocrat Vodka could increase by 74 percent whereas the price of the more expensive Grey Goose Vodka could decrease by nine percent, assuming wholesale and retail markups of 20 percent and 25 percent respectively. Nine of the top ten brands of distilled spirits in terms of volume sold in FY 2010 could see a significant increase in price.

Proposal May Overstate Growth Due to Repatriation of Sales

The Administration proposal assumes that there will be a repatriation, or recovery, of sales from other states under privatization due to the increased convenience for Virginia consumers to purchase distilled spirits in Virginia. The Administration assumes a 7.7 percent repatriation of sales (294,000 cases) statewide. Administration staff indicated that this is based on recognizing a portion of a DISCUS estimate of a 20 percent loss in volume of off-premise sales in Virginia due to cross-border purchases. The 7.7 percent estimate along with an estimate for natural growth (discussed below) also equates to half the difference between Virginia's current sales volume and the national average sales volume per capita.

There is much uncertainty surrounding the repatriation of off-premise sales. Different factors would work for and against this effect. Under privatization, it may be more convenient for Virginians to purchase distilled spirits. While currently only available at ABC stores, under privatization distilled spirits would be available from different types of retailers and there would be nearly a three-fold increase in the number of locations. Several retailers interviewed by JLARC staff indicated that convenience is an important factor for consumers, and they believe that the Administration's 7.7 percent estimate for repatriation is low.

However, there are also a number of factors that would work against a significant repatriation of sales to Virginia. The Commonwealth already has a higher excise tax than most surrounding states (Table 7), and the proposed change to $17.50 per gallon would increase the excise tax for many brands of spirits, particularly those most frequently purchased. Excise taxes in Virginia could increase on average by as much as 43 percent. As noted above, this would contribute to an overall increase in the price for many brands, which could have the effect of depressing demand for those brands. If distilled spirits in Virginia are more expensive than in surrounding states, and if prices increase further for some brands, it is not clear that a significant repatriation of sales volume would occur.

Table 7: Excise Taxes for Distilled Spirits in Virginia and Neighboring States

District of Columbia	$1.50
Maryland	$1.50
Kentucky	$1.92
Tennessee	$4.40
Virginia	$12.20[a]

[a] Represents Virginia's ad valorem tax converted to a per-gallon tax based on gallons purchased.

Note: Current taxes levied in North Carolina and West Virginia are not included because estimates from those states appear to also include state profits.

Source: Federation of Tax Administrators.

The Administration's assumption regarding repatriation is also based on the higher volume of distilled spirits sold per capita in the District of Columbia than nationally. In 2009, for example, 1.62 gallons were sold in Virginia on a per capita basis, compared to 4.46 gallons per capita in D.C., and to 2.04 gallons per capita for the nation as a whole, according to data presented to the September 8 meeting of a subcommittee of the Reform Commission.

Because Virginia's per capita sales volume statewide is lower than the national average, the assumption is that this is caused, in part, by Northern Virginians making their purchases of spirits in D.C. or Maryland. However, data on sales volume and population in Virginia do not necessarily support decreases in purchasing on a wide scale. For example, 24 percent of the total ABC volume sold was in the Northern Virginia planning district in 2009. Similarly, 27 percent of Virginia's population age 20 years and older lived in the Northern Virginia planning district in 2009, which approximates ABC sales to this region.

Regardless of the amount of repatriation that is assumed, any assumption should be applied only to off-premise sales because repatriation is not likely to impact on-premise sales in restaurants and bars. As shown in Table 5, a repatriation of 7.7 percent in off-premise sales would lead to an increase of 6.4 percent in total volume for distilled spirits.

Natural Growth of Sales Is Uncertain

The Administration's proposal also includes an assumption of three percent natural growth in volume of distilled spirits sold based on growth in sales volume experienced by ABC in recent years. This growth exceeds population growth in Virginia, which has been approximately one percent annually in recent years, but likely picks up recent changes in State policy, such as increasing the number of ABC stores that are open on Sunday.

It is unknown how natural growth would change under privatization. However, there would a three-fold increase in the number of stores selling distilled spirits, and depending on how the law is structured, many of these stores would likely sell spirits on Sunday. Therefore, the assumption of a three percent natural growth rate in the first year appears reasonable. However, this growth rate would probably decrease to a rate more commensurate with population growth in future years.

Inflation Will Diminish Value of Revenues Generated by Gallonage Tax

Another consideration regarding the excise tax is the impact of moving from an ad valorem tax to a flat gallon tax. Revenue from the current 20 percent ad valorem tax increases as both volume and price increase and thereby naturally keeps up with inflation.

The $17.50 tax would only increase if volume increases. Between FY 2006 and FY 2010, actual excise tax collections on distilled spirits increased by more than 17 percent. If the $17.50 gallonage tax had been in effect over this same time period, revenue collections would have increased by less than 11 percent. This example shows that, as effects such as Sunday sales and increased locations wear off after the first year, increases in excise tax revenue will be eroded continuously by inflation under a flat gallonage tax.

SALES TAX ESTIMATES MAY BE TOO HIGH

The Administration's sales tax estimates are based on assumptions regarding how much distilled spirits are expected to be sold in Virginia. But given the likely price increases associated with the Governor's proposal for changing the excise tax, the volume of distilled spirits sold in Virginia would likely decrease.

Using the same alternative assumptions that are in the excise tax analysis and substituting the alternative volumes into the Administration's spreadsheets, JLARC staff estimated how these alternative volumes would cause the estimated sales tax revenues to change. Table 8 indicates that if prices increase, as discussed earlier, the likely result could be as much as $15.4 million less sales tax revenue than assumed in the Administration proposal.

Table 8: How Changing Assumptions in the Proposal About Price and Volume Impact Potential Sales Tax Revenue (2011)

Changed Assumption	Administration's Proposal	Assuming 26% Retail Price Increase	Assuming 11% Retail Price Increase
Decreasing Volume of Off-Premise Sales Due to Price Increase[a]	0.0%	-46.3% to 10.4%	-21.3% to -4.4%
Increasing Total Volume Due to Repatriation	7.7%	0% to 6.4%	0% to 6.4%
Increasing Total Volume Due to Natural Growth	3.0%	3.0%	3.0%
Impact on Administration's Sales Tax Revenue Estimate of $39.6 Million	--	-$15.4 Million to -$4.8 Million	-$8.8 Million to -$3.3 Million

[a] Price elasticity estimates range from -2.0 (based on a review of relevant literature) to -0.4 (based on estimates from ABC staff). Decreases in volume are estimated only for off-premise sales. On-premise sales would probably also decrease, but estimating these decreases would require that retailers not change their markup, which may not be as likely as with off-premise sales.

Source: Virginia Department of Taxation and JLARC staff analysis of Department of ABC data.

PROPOSAL TO USE ONE-TIME ABC REVENUES TO FUND A VIRGINIA TRANSPORTATION INFRASTRUCTURE BANK

The Administration has proposed using the one-time proceeds from the privatization of ABC for transportation. Specifically, the Administration would create a Virginia Transportation Infrastructure Bank (VTIB) to fund transportation projects.

One-time proceeds from privatization would be placed into the VTIB, then used to provide loans to fund all or part of projects. An infrastructure bank is a revolving loan fund through which funds are loaned out to borrowers who will build transportation projects. Over time, these borrowers repay the loan to the bank. As time passes, these repaid funds are then loaned out again to other borrowers.

VTIB Would Offer Loans to New Infrastructure Projects at Below-Market Interest Rates

According to staff in the Secretary of Transportation's office, the VTIB would provide loans to a variety of borrowers, including local governments, transportation authorities and commissions, transit companies, railroads, and other private sector entities. The loans would be used to fund all, or a portion, of transportation infrastructure projects. The Administration believes the VTIB would most likely provide loans to two major types of borrowers: Public-Private Transportation Act (PPTA) projects and those initiated by local governments. The VTIB would also provide small grants to be used in rural areas.

The VTIB concept hinges primarily on offering loans to projects at a rate that is below what the market would provide. Though administrative costs would need to be covered through the interest that is charged, the VTIB would have flexibility to set rates on a case-by-case basis for various applicants based on their credit-worthiness and other measures of risk. Depending on the amount of the loan and how far below the existing market the VTIB rate is, borrowers could considerably reduce their financing costs over the duration of the loan.

Creating the VTIB would be an alternative to, for example, using the privatization proceeds along with other funds to be allocated by the Commonwealth Transportation Board (CTB) through the State Six-Year Improvement Program (SYIP). The SYIP is used by the CTB to allocate funding to specific transportation projects, and is traditionally funded primarily through ongoing State revenue and federal aid. Administration officials cite the following key factors in their decision to use ABC proceeds to fund the VTIB.

Interest on Current Loans Will Fund Future Loans. The value of projects funded through the VTIB can be greater over time than using a more traditional funding approach. As the first group of VTIB borrowers begin to repay the interest on their loans, those funds can then be lent to other borrowers. This can have the effect of leveraging the initial ABC proceeds for a longer period of time, and at a multiple of its original value.

Critical Mass. The VTIB could be used to fund an entire project, or as "seed money" to gain sufficient momentum to attract additional credit. Loans provided through the VTIB could be used to attract additional, perhaps smaller amounts of funding, from other investors who may not wish to bear the entire risk of funding the project, or do not have the capacity to fund the entire project. The ability to partially fund a project is not unique to the VTIB, but is especially relevant given the current constrained credit environment confronting potential borrowers with anything less than the absolute highest credit rating.

Time Horizon. The VTIB approach contemplates making loans for extended periods of time, for example 20 years. Such long-term timeframes are more consistent with the useful life of major infrastructure projects, which are typically measured in decades. Rather than trying to fund a major project that will last 50 to 80 years using cash over a five- to ten-year period, large projects could be funded through the VTIB over a longer duration with borrowed funds more consistent with their useful life expectancy.

Project Selection. According to the Administration, the VTIB is an additional mechanism for funding projects, but not necessarily a separate mechanism for selecting projects. So in theory, according to officials, projects funded through the VTIB could still be selected from long-range plans and approved through the SYIP process used for other systems constructions projects.

Infrastructure Banks Are Not A New Concept

The infrastructure bank concept is not new. The federal government initially authorized State Infrastructure Banks (SIB) through a pilot program in 1995. Federal funds were provided, then matched with state funds, to establish infrastructure banks in ten states. In 1997, the program was expanded and 33 state infrastructure banks were established. Virginia's SIB has not been very active, though it has made a $10 million loan to be used for the I-95 / I-395 high occupancy toll (HOT) lane project.

Other states, however, have been more active in their use of SIBs over the years, including Florida, Ohio, Minnesota, Missouri, and Pennsylvania. Pennsylvania, for example, uses its SIB to fund highway, transit, rail, and aviation projects. A Pennsylvania official noted to JLARC staff that its SIB is currently funded through ongoing revenues of about $30 million per year. The Pennsylvania SIB's goal is to be, on average, about half the market rate that a borrower could otherwise obtain. The Pennsylvania official reported that last year was the bank's busiest year, due in large part to the constrained credit environment. He noted there is always risk associated with lending money, but that in the vast majority of cases borrowers make their payments.

The infrastructure bank concept is similar to another ongoing federal program created through the Transportation Infrastructure Finance and Innovation Act (TIFIA). The TIFIA program provides federal credit assistance through a variety of forms, including direct loans and lines of credit. Virginia used TIFIA funding for the I-495 HOT lane project. The nearly $2 billion project is being financed through a combination of methods, including a $589 million TIFIA loan and a $409 million grant from the State.

Virginia has several other revolving fund programs which appear similar to the VTIB concept. For example, the Virginia Resources Authority has funded more than 1,000 projects addressing community development totaling more than $4.8 billion since 1984. Smaller in scale but similar in design is Virginia's Literary Fund, which provides low-interest loans for school construction and information technology.

Major Provisions That Would Need to Be Assessed Have Not Yet Been Finalized

Given that other states and the federal government have infrastructure banks, and that Virginia already has several similar constructs, the general level of risk with the VTIB concept is relatively low. However, the VTIB is merely a concept at this point. Because of this, major assumptions that should be analyzed are not available. While transportation officials expressed some general ideas to JLARC staff about target interest rates, VTIB governance, and lending policies, these details will require careful assessment once they are finalized.

In this respect, Administration officials indicated a major task after the VTIB's creation would be developing policy guidance. The guidance, once drafted, will detail the administration of the VTIB, the application process, and approval criteria to assess the creditworthiness of potential borrowers. Absent specific, detailed policies and procedures, JLARC staff have identified more general, potential risks associated with the VTIB for consideration.

One-Time Nature of VTIB Funding. An important difference between the VTIB construct and many of the federal and other state programs discussed above is the one-time nature of VTIB funding. Unlike many other SIBs, the VTIB will not receive any appreciable ongoing revenue from the State after receiving the one-time proceeds from ABC privatization. This difference places a premium on the policies created to address critical details, including (1) the length of time the VTIB will actively make loans to borrowers, (2) the number of projects, and for what amounts of total funding, the VTIB will initially fund, and (3) the rates the VTIB will charge borrowers of various creditworthiness, specifically in the context of receiving sufficient interest over a long enough period of time to fund additional projects in the future.

Ongoing Financial Viability of VTIB. While transportation officials indicate they have had preliminary discussions with several potential borrowers, the exact level of demand for VTIB loans is unknown. This is partly because the amount of funds available in the VTIB will not be known until after the privatization of ABC, which as noted above could result in a wide range of proceeds. Uncertainty of demand, however, is also due to the fact that much of the VTIB's appeal rests on the exact rate that would be offered in each borrower's unique circumstance. The ongoing viability of the VTIB also rests on each borrower's ability to repay their loan. This dynamic places a premium on the extent to which the specific loan criteria, once developed, assess the reliability of the revenue stream proposed for use to repay the loan.

Impact on Future State Transportation Costs. While not unique to the VTIB, the issue of building new transportation infrastructure could exacerbate the State's challenges in funding maintenance of existing infrastructure. As revenue available for transportation declined during the recession, maintenance costs continued to increase. This led to a substantial portion of the Transportation Trust Fund, which funds new systems construction, being used to subsidize a deficit in the Highway Maintenance and Operating Fund, which funds maintenance of existing infrastructure. Moving forward, the Virginia Department of Transportation expects that maintenance costs will continue to increase. This underscores the importance of clearly articulating the State's role in maintaining any VTIB-funded projects after they are completed.

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The following JLARC staff worked on this review: Walt Smiley, Team Leader; Dr. Greg Rest, Methodologist; Kimberly Sarte; Justin Brown; Brad Marsh; and David Reynolds.